

# CASE STUDY



## SOLIDWORKS IS THE KEY TO MAKE OUR "DREAM OF DESIGN IDEA COMES TRUE"

SAMEER was set up as an autonomous R&D laboratory in Mumbai under the then Department of Electronics, Government of India with a broad mandate to undertake R&D work in the areas of Microwave Engineering and Electromagnetic Engineering Technology.

It has developed India's first indigenous Linear Accelerator for Cancer treatment. Currently it has centres in Mumbai, Navi Mumbai, Chennai, Kolkata, Vishakhapatnam and Guwahati.

### The Transformation from Autocad to SOLIDWORKS

In early days, we used only 2d designing software i.e. Autocad to design our sub-system. After 2012, we have started using 3D CAD SOLIDWORKS software. SOLIDWORKS is advantageous in system designing, system visualization and integration. It saves a lot of cost and time involved in prototyping. SOLIDWORKS is a simple and user-friendly software. It is very easy to make 2D drafting, 3D modeling, assembly visualization and simulation in SOLIDWORKS software.



SOLIDWORKS help us right from "designing from scratch" based on our design requirements, we make a rough sketch of our sub-system. The idea is in our mind but how to express? how to communicate? SOLIDWORKS helps in generating our idea into a Part and then assembly. We can visualize it, express it, communicate it to our team. Their suggestions help us in Design perfection. SOLIDWORKS also help in Design evaluation, Simulation and Optimization. For us SOLIDWORKS is the key to make our "Dream of design idea come true".

- Mr. Paresh M Jadhav  
Scientist-D

#### CHALLENGES :

- Designing visualization, finding fouling / interference of parts with each other in the design stage itself is a challenge.
- Design validation without making prototype
- Design optimization without making prototype.

#### SOLUTION :

- Implemented SOLIDWORKS CAD for 3D modelling of parts and assembly
- SOLIDWORKS Simulation and motion animation for analysis purposes
- Simulation for Testing of design.

#### CUSTOMER BENEFITS :

- Cost and time in prototype fabrication is saved
- Design modification can be done.
- 2D drafting from 3D model can be easily done.
- Design optimization and Freezing a design is fast with the help of software.

